

User Manual

sunrise surf & talk



Always a smile



Welcome!

sunrise surf & talk: surf the Internet, send and receive e-mails- and make phone calls also without a fixed network connection.

It's the new way of communicating. Suitable for anyone who wants to make calls and have cheap access to the Internet without a fixed network connection. From home or wherever you have access to the mobile network.

Speed

With mobile broadband from sunrise, surf the Internet with your PC or laptop at speeds up to six times that of ISDN.

Flexibility

The sunrise surf & talk box gives you the capability to set up Internet access quickly and easily in the most varied locations – at home, in your office or on the road. Even mobile project teams can quickly and simply create the accustomed network environment in any location. If UMTS is not available, EDGE is selected automatically. If EDGE is not available, the unit automatically selects GPRS.

Networking

The sunrise surf & talk box is configured to enable you to take advantage of Internet access via a LAN or WLAN with multiple devices simultaneously (laptop, PDA or PC). It is possible, furthermore, to exchange data between connected devices. You can, for example, synchronize the e-mail on your laptop and your PC, simply and securely – regardless of whether you are using a LAN or a WLAN. The sunrise surf & talk box is already set up. All connected computers are linked together in a network and can access among each other the files and printers available in the network.

Security

The sunrise surf & talk box offers comprehensive security measures. The integrated firewall protects you against attacks from the Internet. And the sunrise surf & talk box offers comprehensive protection capabilities for WLAN networks. WEP, WPA1+2 encryption are available to you. This gives you flexibility in deciding which type of protection is right for you (the support for each depends on your computer's WLAN interface).

Simple installation

The sunrise surf & talk box is installed in a few steps. You can start surfing and talking in no time. Insert the SIM card for sunrise surf & talk, connect the wall power supply and enter the PIN for the sunrise surf & talk SIM card. Check the mobile broadband reception quality. Six luminescent bars indicate very good reception. If necessary, change the location of the sunrise surf & talk box to improve the quality of reception. There is now nothing left to stand between you and your surfing enjoyment.

Flexible configuration

The administrative interface is the central coordinating point from which to configure your sunrise surf & talk box. To access the administrative interface, all you need is a browser on your computer. It is not necessary to install any additional software. You can log in comfortably through the protected administrative interface and change the security settings for a WLAN or an IP address. A context-sensitive help function provides you with support through every step in the configuration. Should you make a mistake during configuration, you can restore the sunrise surf & talk box to its factory defaults at any time.

Everything in one unit

The sunrise surf & talk box is a genuine multi-talent. In a single unit it unites a WLAN access point, a router or bridge, a firewall, a DHCP server a mobile broadband modem and a telephone connection, despite dimensions of no more than 18.5 x 4.9 x 10 cm. Power consumption is correspondingly low at 5 W. As a result, there is nothing to stand in the way of long-term use of the sunrise surf & talk box.

Table of Contents.

Your sunrise surf & talk box.	6
Safety instructions	6
Included in delivery	6
LCD display	7
Control options and connections	7
Instructions for use	8
First Steps.	10
Setting up connections.	14
Setting up a WLAN connection	14
Setting up a LAN connection	21
Basics of administration.	25
Logging in and logging out	25
Changing your password	26
Changing the PIN of the SIM card for sunrise surf & talk	26
Unlocking the SIM card for sunrise surf & talk	27
Setting the time and date	27
Configuring automatic disconnection	28
Configuring your APN (Access Point Name)	29
Disconnecting from the Internet	29
Restarting the sunrise surf & talk box	30
Restore factory settings (reset)	30
Switching the SIM card for sunrise surf & talk	31
Conducting the self-test	32
Updating firmware	32
Telephone.	33
Using the telephone	34
Managing SMS messages.	40

Security settings in detail.	42
Basic firewall protection	42
Additional protection through encryption	43
Pro settings.	47
Changing a static IP address	47
Configuring the DHCP server	47
Configuring dynamic DNS	48
Configuring port forwarding	49
Selecting a WLAN channel	49
Adjusting the WLAN output power	50
Diagnostic tools.	51
Status of the sunrise surf & talk box	51
Ping diagnosis	52
Troubleshooting – Administration interface.	53
Glossary.	56
Specifications/Technical data.	58
Range of applications	58
Features	58

Your sunrise surf & talk box.

Safety instructions.

To avoid hurting yourself or doing damage to the electronic device, please keep the following tips in mind when installing and using the sunrise surf & talk box.

- The sunrise surf & talk box is a mobile electronic device, and is only intended for use in heated, dry, and dust-free spaces. The device may not be mounted or placed in a location subject to direct sunlight or the effects of heat. The air slots and openings in the device are for ventilation purposes. These openings must not be covered or obstructed.
- The device must not come into contact with any liquids, as this can lead to electric shock or short circuit, and can cause irreparable damage to the device.
- Do not open the case of your sunrise surf & talk box. If the case is opened by unauthorized persons, or inexperienced repairs are attempted, all warranty agreements become null and void. Furthermore, such actions are dangerous for users and can lead to damage to the device.
- The device should not be exposed to fire or other heat sources, and it should not be used in locations with a potentially explosive atmosphere.
- The device should not be installed during a thunderstorm, and should remain unplugged during installation procedures.
- The electronic interference produced by the device may affect the electronic systems and navigational systems in airplanes, and for this reason, the use of this device on board aircraft is prohibited by law in most countries.
- Do not operate the device near medical equipment without prior permission.

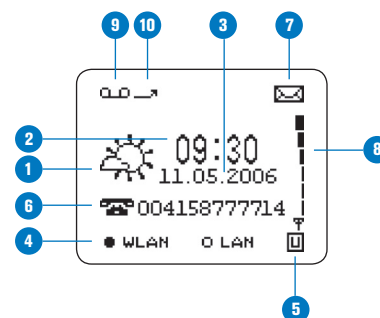
Included in delivery.

The carton with the sunrise surf & talk box includes

- 1 sunrise surf & talk box
- 1 power supply cord with connecting cable for attaching to the power supply
- 1 Fast Ethernet 10/100 BaseT network cable
- 2 screws and rawlplugs for mounting the device on a wall
- 1 CD ROM with user's manual and log-in information for the sunrise surf & talk box administration interface
- 1 Quick Start guide
- 4 rubber feet

LCD display.

1. Barometer – shows the current weather situation: sunny, overcast and rainy
2. Current time – displayed in 24-hour format
3. Current date in the format: DD.MM.YYYY
4. Status indicator for the local network connection to the computer: WLAN or LAN
5. Status indicator for the availability and type of network: U, E or G (U=UMTS, E=EDGE or G=GPRS)
6. Display of the current outgoing or incoming telephone number
7. Display indicates an SMS message has been received
8. Bar indicator for the signal quality of the network in use (U, E or G). The more bars displayed, the better the signal quality. A blacked-in box indicates that the function/option is active.
9. Voice mailbox
10. Call diversion



Control options and connections.

LAN connection

The LAN connection is used to connect the sunrise surf & talk box to a PC or laptop by means of a network cable. Menu option 4 in the LCD display shows the type of connection between your sunrise surf & talk box and the PC or laptop connected to it. If both devices are switched on, the box for LAN should be blacked-in.

Power supply

To connect the device to the electrical grid, insert the smaller end of the power cable into this connector.

Telephone connection

Here you can connect your telephone. If you wish to have a telephone connected to the device, you can attach it here.

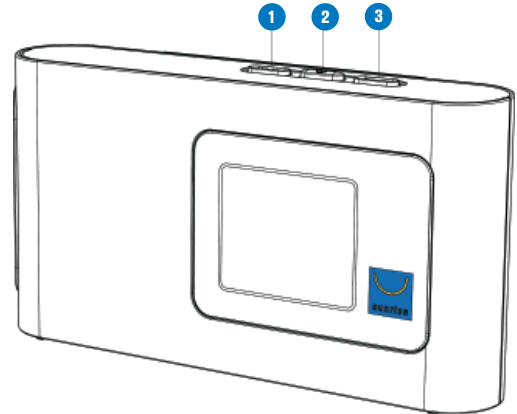
Reset button

The reset button is located in the small hole on the left of the telephone jack, when looking at the sunrise surf & talk box from above. Depending upon how long you press the reset button, you can initiate the following actions:

- Restart the sunrise surf & talk box
- Restore the factory settings, also see *Restore factory settings (RESET)*, p. 30.

Buttons

1. This button is used to adjust the brightness of the display.
2. This button switches the device on and off.
3. This button is used to manually connect to a mobile network.



Instructions for use.

Wiring

The sunrise surf & talk box cables can be easily lengthened, if required. You can purchase cable in the lengths you need at a computer or electronics store. Keep the following tips in mind, however, when attaching cables.

- If you wish to connect your computer directly to the sunrise surf & talk box, without using a switch or hub, be sure to use a crossover Ethernet 10/100 BaseT cable with STP («shielded twisted pairs»).
- If you wish to attach your computer to the sunrise surf & talk box via a switch or hub, be sure to use a standard Ethernet 10/100 BaseT cable with STP.
- The cable should be a maximum of 100 m long.

Wireless Local Area Network (WLAN)

The two WLAN standards used today, 802.11b and 802.11g, were developed by the Institute of Electrical and Electronic Engineers (IEEE). Using the 802.11b technology, a transfer rate of up to 11 Mbit/s can be obtained, while the 802.11g standard allows transfer speeds of up to 54 Mbit/s.

The sunrise surf & talk box supports both standards. With a WLAN adapter based on one of the two standards, you can connect to the sunrise surf & talk box. The range of the WLAN depends a lot on the WLAN adapter used, as well as structural considerations of the location of the network. WLAN devices of different standards can be used simultaneously to set up connections with the sunrise surf & talk box.

The sunrise surf & talk box is equipped with an internal WLAN antenna, which is not visible from the outside of the case.

Administration interface

The administration interface of the sunrise surf & talk box can be accessed either through the log-in link on the CD ROM, or with an Internet browser. The browser has to support JavaScript and CSS (e.g., Microsoft Internet Explorer version 5.5 or higher, or Mozilla Firefox).

Note: Please make sure that JavaScript is activated in your browser program.

DHCP server

The sunrise surf & talk box is equipped with its own DHCP server. The server is activated by default when it ships from the factory. Each computer connected to the device is issued an IP address by the DHCP server.

This means that you can assign fixed IP addresses to computers connected to the sunrise surf & talk box, directly within their network settings. The following IP addresses are reserved, and may not be used:

- 192.168.0.1
- 192.168.0.10 up to 192.168.0.200

Note: Please keep in mind that when you change an IP address, you no longer have the ability to access the user interface using the log-in link on the CD ROM.

Note: If you use the sunrise surf & talk box in a network, no other DHCP server must be active in the network.

First steps.

Set up the sunrise surf & talk box at a suitable location, one that meets the following criteria:

- The site should be dry and free of dust, and must not be exposed to direct sunlight.
- If you want to connect the device with your computer via network cable, keep in mind that the maximum cable length is 100 m, and situate the device near your computer.
- If you wish to establish a wireless WLAN connection from one or more computers to the sunrise surf & talk box, set up the device in a central location in your office or at home, in a spot with good mobile broadband coverage.
- Be sure to allow for sufficient distance from any possible sources of interference or disturbance such as microwave ovens or electronic devices with large metal cases.
- On the bottom of the sunrise surf & talk box there are recesses into which you can place the rubber feet (included). They will help protect your furniture from being scratched.
- To mount the sunrise surf & talk box to the wall, use the drilling diagram included for this purpose. You can find the diagram at the end of this manual.

Step 1 – Insert the SIM card for sunrise surf & talk.

The SIM card is inserted in the same way as with your mobile phone: the SIM compartment is on the underside of the box, on the bottom of the device. Slide the sunrise SIM card into the compartment all the way, until it clicks into place. Important: The sunrise surf & talk box will not work without a SIM card for sunrise surf & talk.

Note: If the sunrise surf & talk SIM card is inserted improperly or is defective, the following text will be displayed after Step 3 has been completed: "Error SIM card". In such an event, disconnect the device from the power supply and re-insert the sunrise surf & talk SIM card into the device, as shown in the diagram. If this still doesn't solve the problem, your sunrise surf & talk SIM card may be defective.

Step 2 – Set up the sunrise surf & talk box

If possible, place the sunrise surf & talk box close to a window, as the reception is best there.

Note: If the message "No network" appears on the display after you've completed Step 3, you should choose another location to set up the device.

Step 3 – Connect to power supply.

Be sure to use the original sunrise surf & talk box power cord. Other power cords may damage or destroy the device. If other power cords are used, sunrise does not assume responsibility for damages. First insert the small connector in the upper round slot in the sunrise surf & talk box, and then insert the larger connector in the power outlet. The device generally takes between 60–90 seconds to start up. The “Welcome” picture from the sunrise surf & talk box will appear, along with the message “Please wait...”.

After the warm-up phase, you will see the message “Network search”. If a “Connection failure” message appears on the display, unplug the power plug, wait 20 seconds, and plug the power cord back in. Repeat this process until you are requested to enter a PIN number. If this has already occurred, the start screen will appear on the display. The connection bars on the right edge of the display show the quality of the connection.

Note: Please note that the type of connection is shown at the bottom of the display, “WLAN” on the left or “LAN” in the middle. The available network is shown on the bottom right ((U=UMTS, E=EDGE, G=GPRS).

Step 4a – Connect your PC/laptop to the sunrise surf & talk box.

There are two ways of connecting the sunrise surf & talk box to your PC or laptop: either using WLAN (wireless) or with the enclosed network cable (LAN).

Note: You need not shut down your computer in order to attach the network cable.

Step 4b – Attach telephone.

If desired, you can use the telephone in “stand alone” function, for example if you do not have a computer. Before you can use the telephone functions of the sunrise surf & talk box, you must activate the SIM card for sunrise surf & talk by entering the PIN. The PIN is saved in the sunrise surf & talk box. If you switch the sunrise surf & talk SIM card, you have to enter the PIN for the new sunrise surf & talk SIM card. After you connect a telephone to the sunrise surf & talk box and enter the PIN, you can make and receive calls immediately.

1. Pick up your receiver.

The SIM card for sunrise surf & talk is not yet activated. On the sunrise surf & talk box display, the following message appears: “Please enter PIN”. You will hear the dial tone, and an additional signal tone.

2. Press the button, enter your PIN and confirm by pressing the button.

If the PIN you entered is correct, you will hear a confirmation tone.

If the PIN you entered is incorrect, you will hear a warning tone and the following message will appear on the display: “Incorrect PIN. X attempts remaining”.

3. Make a call or put the receiver back down.

Step 5 – Register the network with Windows.

You can find more detailed information in the chapter «Setting up connections», p. 14.

Note: The first steps for Mac OS users are not described in this manual. Mac OS users should consult their Apple manual, or contact Apple directly.

Step 6 – Connect to the Internet.

When getting started, you will need the PIN for the sunrise surf & talk SIM card that you inserted into the device. The PIN can be found in the enclosed SIM letter.

Note: The PIN is saved in the sunrise surf & talk box. After a SIM card for sunrise surf & talk has been changed, you will have to enter the new PIN for the new SIM card.

1. Log on to the administration interface of the sunrise surf & talk box. To do this, choose the «Security Wizard» option from the main page of the CD ROM.
2. When prompted, enter «admin» as the user name and «admin» as the password. Press **OK**.
3. Step 1 of the Security Wizard: Activate the SIM card for sunrise surf & talk. In the two fields **PIN** and **Confirm PIN**, enter the PIN supplied with the SIM card for sunrise surf & talk, shipped with the sunrise surf & talk box. Click on **Continue**.

Note: The SIM card for sunrise surf & talk automatically chooses the fastest available network connection without any input from the user.

4. Step 2 of the Security Wizard:

Access Point

The APN (Access Point Name) is a term with which you can specify your provider. The pre-set value here should be correct for use in the sunrise network.

Activate mobile broadband

If you have activated mobile broadband, the device will automatically connect to the mobile broadband network when you attempt to set up a connection to the Internet. (Variation: If you attempt to set up an outgoing connection from a client computer and have activated **mobile broadband**, the sunrise surf & talk box will automatically set up the connection.)

Disconnect when inactive

If you don't use a mobile broadband connection for a set length of time once this connection has been established, the connection will be aborted automatically to save costs.

5. Step 3 of the Security Wizard:

It is essential that you activate encryption for your network. Otherwise, unexpected costs may arise. An unencrypted access point allows other individuals to access your network from outside your premises, and to surf at your cost.

SSID

The SSID (Service Set Identifier) is a network identification code used by the device in a wireless network. You can choose this code on your computer, in order to connect with the device.

SSID transmissions

Normally, the device sends out its SSID to client computers to show availability. You can stop these transmissions, however, to further increase security. In this case, you have to enter the SSID manually at each client computer.

WLAN encryption

To prevent unauthorized outside individuals from connecting to your device and using it or monitoring your data traffic, you should definitely encrypt your WLAN connection. The most secure methods of encryption, are, in order of security: WPA 1+2, WEP 128 Bit, WEP 64 Bit. You should choose the most secure method that is supported by your computer. The most up-to-date versions of Windows and Mac OS both support WPA 1+2.

WLAN encryption code

If you decide to encrypt your WLAN, you have to choose an encryption code. With the WPA encryption methods, you can choose either a password or a hexadecimal character code. The WEP encryption methods require a hexadecimal code with a length of 26 characters (128 bit) or 10 characters (64 bit).

Note: To guarantee the highest degree of security, the WPA 1+2 encryption method should be activated.

Furthermore, we would like to remind you that an unencrypted connection can lead to high costs for you, since an outside individual can use your network: «Your neighbor surfs at your cost».

For more detailed information, see chapter Setting up connections, p.14.

6. Step 4 of the Security Wizard:

Security level

The security level allows you to choose a pre-set security configuration. In particular, these configurations affect which type of data traffic is allowed by the device, e.g. www or FTP services, e-mail, etc. If you require a detailed configuration of the security settings, you can modify one of the basic settings selected here at a later time, in the «Security» menu.

Your sunrise surf & talk box is now configured. To exit the administration interface, you can either close the browser or enter a URL of your choice in the address line of your browser, thus proceeding into the wide domain of the Internet.

- The Internet connection is terminated automatically if it is inactive for a longer period of time.
- You can view the mobile broadband connection status in the **Status** menu, in the tab, **mobile broadband**.

Setting up connections.

You can connect your PC/laptop to the sunrise surf & talk box using WLAN (wireless) or with a network cable. In this section you will find the following directions:

- *Microsoft Windows XP: Setting up WLAN connection on page 14*
- *Microsoft Windows 2000: Setting up WLAN connection on page 18*
- *Microsoft Windows XP: Setting up LAN connection on page 21*
- *Microsoft Windows 2000: Setting up LAN connection on page 23*

If you use an operating system other than Microsoft Windows XP (Service Pack 2) or Microsoft Windows 2000, please read the user documentation from the respective manufacturer.

Setting up a WLAN connection.

In order to connect the sunrise surf & talk box using WLAN, the PC/laptop to be connected must support the WLAN standard IEEE 802.11b or IEEE 802.11g. If your PC/laptop does not support any of these standards, you can use an external WLAN adapter (e.g. on USB basis) or an internal WLAN board.

Microsoft Windows XP: Setting up a WLAN connection.

In order to be able to use a WLAN connection between your PC/laptop and the sunrise surf & talk box, the following steps are necessary:


1. Configure a WLAN connection
2. Establish a WLAN connection
3. Deactivate any proxy server
4. Configure encryption for the sunrise surf & talk box
5. Configure encryption for your PC/laptop

Note: The following describes how to set up a WLAN connection, as an example, for the WLAN adapter «Intel® PRO/Wireless 2200BG Network Connection». If you use a different WLAN adapter or a WLAN card, please read the user documentation of the respective manufacturer.

Step 1 – Configure WLAN connection.

1. Start your PC/laptop.
2. Click on the **START** button in the taskbar of your PC and choose **Settings > Network Connections**.
The **Network Connections** dialogue is opened.
3. Right click on **Wireless Network Connection** and select **Properties** in the context menu.
The **Wireless Network Connection Properties** dialogue is opened.
4. Make sure that on the **General** tab the **Internet protocol (TCP/IP)** box is checked.
5. Highlight **Internet protocol (TCP/IP)** and click on the **Properties** button.
The **Internet protocol (TCP/IP) Properties** dialogue is opened.
6. Check the **Obtain an IP address automatically** option field on the **General** tab and click on the **OK** button.
7. In the **Wireless Network Connection Properties** dialogue, click on the **OK** button.
You will be asked, if necessary, to restart your computer.

Step 2 – Establish WLAN connection

1. Click on the **START** button of the taskbar of your computer and select **Settings > Network Connections**. Der
The **Network Connections** dialogue is opened.
2. Right-click on  **Wireless Network Connection** and select **Display available wireless networks** from the context menu.
The **Wireless Network Connection** dialogue is opened.
3. Mark the «sunrise surf & talk box» wireless network and click on the **Connect** button.
It takes about ten seconds for the connection between your PC/laptop and the sunrise surf & talk box to be established.

Step 3 – Deactivate proxy server

If you use a proxy server for access to the Internet, deactivate it.

Note: As an example, the following describes the procedure for Microsoft Internet Explorer. If you use a different browser, please read the appropriate user documentation.

1. Start Internet Explorer.
2. Select **Tools > Internet Options**.
The **Internet Options** dialogue is opened.
3. Click on the **Connections** tab.
4. Click on the **LAN Settings** button in the **Local Area Network (LAN) Settings** area.
The **Local Area Network (LAN) Settings** dialogue is opened.
5. Uncheck the following boxes:
 - **Automatically detect settings**
 - **Use a proxy server for your LAN**
6. In order to save this configuration, click on the **OK** button.
7. Close the **Internet Options** dialogue by clicking on the **OK** button.

Step 4 – Configure encryption for the sunrise surf & talk box

Please make sure that encryption is activated since otherwise additional costs could arise under certain circumstances. An uncoded access makes it possible for someone from the outside who accesses your network to surf at your expense.


Note: WPA encryption is preferable to WEP encryption. For this reason, configuration of WPA encryption is described below as an example.

1. Log in to the administration interface of sunrise surf & talk box (see Logging in and logging out, pg. 25).
2. Click on **Encryption** in the **Security** menu.
3. Select **WPA1+2** from the **Encryption mechanism** selection list.
4. Check the **Pass phrase** option field in the **WPA Settings** area.
5. Enter any string into the **Key** field.
The string serves to dynamically produce the WPA key.

Please note! Please make a note of the string entered. You will need it in the next step for the configuration of your PC/laptop.

6. Click on the **OK** button.
The encryption is now activated for the sunrise surf & talk box, but not yet for your computer. This is why the WLAN connection between the devices is interrupted. It is possible your browser will display the message «The document contains no data.»

Step 5 – Configure encryption for your computer

1. Click on the **START** button of the taskbar of your computer and select **Settings > Network Connections**.
The **Network Connections** dialogue is opened.
2. Right-click on  **Wireless Network Connection** and select **Properties** from the context menu.
The **Wireless Network Connection Properties** dialogue is opened.
3. Click on the **Wireless Networks** tab.
4. Mark «sunrise surf & talk box» in the **Preferred Networks** area and click on the **Properties** button.
The **sunrise surf & talk box Properties** dialogue is opened.
5. Carry out the following settings in this dialogue:
 - Select «WPA-PSK» in the **Network Authentication** selection list.
 - Select «AES» in the **Data Encryption** selection list.
 - Enter the string that you chose in the previous step for encryption the sunrise surf & talk box into the **Network Key** and **Confirm Network Key** fields.
6. Click on the **OK** button.
7. In the **Wireless Network Connection Properties** dialogue, click on the **Close** button.
The encryption is now activated for the sunrise surf & talk box and for your computer. The WLAN connection is automatically established between the devices.

You can now continue with Step 6 – Connect to the Internet (page 12).


Microsoft Windows 2000: Setting up a WLAN connection.

In order to be able to use a WLAN connection between your PC/Laptop and the sunrise surf & talk box, the following steps are required:

1. Configure a WLAN connection
2. Establish a WLAN connection
3. Deactivate any proxy server
4. Configure encryption for the sunrise surf & talk box
5. Configure encryption for your PC/Laptop

Note: The following describes the setting up of a WLAN connection, as an example, for the WLAN adapter «D-Link AirPremier AG DWL-AG530 Wireless PCI Adapter». If you use a different WLAN adapter or a WLAN card, please read the user documentation of the respective manufacturer also.

Step 1 – Configure WLAN connection

1. Click on the START button of the taskbar of your computer and select **Settings > Network and Dial-up Connections**.
The **Network and Dial-up Connections** dialogue is opened.
2. Right-click on the  **Local Area Connection** of your WLAN card or your WLAN adapter and select **Properties** from the context menu.
The **Local Area Connection Properties** dialogue is opened.
3. Make sure that on the **General** tab the box for **Internet Protocol (TCP/IP)** is checked.
4. Highlight **Internet Protocol (TCP/IP)** and click on the **Properties** button.
The **Internet Protocol (TCP/IP) Properties** dialogue is opened.
5. On the **General** tab, click on the **Obtain an IP address automatically** option field and then click on the **OK** button.
6. In order to save the configuration, click on the **OK** button in the **Local Area Connection Properties** dialogue.
You will be asked, if necessary, to restart your computer.

Step 2 – Establish WLAN connection

1. Start your PC/laptop.
2. Double-click on the **D-Link AirPremier** symbol in the taskbar of your computer.
The **D-Link AirPremier AG Utility** dialogue is opened.
3. Click on the **Configuration** menu
4. Enter the SSID of the sunrise surf & talk box in the **SSID** field.
The SSID is registered as «sunrise surf & talk box» from the factory.
5. Click on the **Save** button.
6. Click on the **Environment Overview** menu.

7. Highlight «sunrise surf & talk box» in the **Profile** area and click on the **Connect** button.
You will be asked, if necessary, to restart your computer.

Step 3 – Deactivate proxy server

1. Make sure that on the **General** tab the box for **Internet Protocol (TCP/IP)** is checked.
2. Highlight **Internet protocol (TCP/IP)** and click on the **Properties** button.
The **Internet Protocol (TCP/IP) Properties** dialogue is opened.
3. On the **General** tab, click on the **Obtain an IP address automatically** option field and then click on the **OK** button.
4. In order to save the configuration, click on the **OK** button in the **Local Area Connection Properties** dialogue.
You will be asked, if necessary, to restart your computer.

Step 4 – Configure encryption for the sunrise surf & talk box

Please make sure that encryption is activated since otherwise additional costs could arise under certain circumstances. An uncoded access makes it possible for someone from the outside who accesses your network to surf at your expense.

Note: WPA encryption is preferable to WEP encryption. For this reason, configuration of WPA encryption is described below as an example.

1. Log in to the administration interface of sunrise surf & talk box (see Logging in and logging out, pg. 25).
2. Click on **Encryption** in the **Security** menu.
3. Select **WPA1+2** from the **Encryption mechanism** selection list.
4. Activate the **Pass phrase** option field in the **WPA Settings** area.
5. Enter any string into the **Key** field.
The string serves to dynamically produce the WPA key.

Please note! Please make a note of the string entered. You will need it in the next step for the configuration of your PC/laptop.

6. Click on the **OK** button.
The coding is now activated for the sunrise surf & talk box, but not yet for your computer. This is why the WLAN connection between the devices is interrupted. It is possible your browser will display the message «The document contains no data.»

Step 5 – Configure coding for your PC/laptop

1. Double-click on the **D-Link AirPremier** symbol in the taskbar of your computer.
The **D-Link AirPremier AG Utility** dialogue is opened.
2. Click on the **Environment Overview** menu.
3. Highlight «sunrise surf & talk box» in the **Profile** area and click on the **Properties** button.
The **Configuration** dialogue is opened.
4. Carry out the following settings in this dialogue:
 - Select «WPA-PSK» in the Authentication selection list.
 - Select «TKIP» in the Coding selection list.
5. Click on the **Authentication Configuration** button.
The **Expanded Security Settings** dialogue is opened.
6. Enter the string that you chose in the previous step for coding the sunrise surf & talk box in the **WPA Access Code** field, and then click on the **OK** button.
7. In order to save this configuration, click on the **OK** button in the **Configuration** dialogue.
The encryption is now activated for the sunrise surf & talk box and for your computer. You can establish a WLAN connection between the two devices.
8. Click on the **Connect** button.
In the **Link Info** menu it will be displayed whether or not the connection set-up was successful.
You can now continue with Step 6 – *Connect to the Internet*, page 12

Setting up a LAN connection.

In order to establish a LAN connection between your PC/laptop and the sunrise surf & talk box, you first have to connect them with a network cable (Ethernet cable). Depending on how you would like to connect your computer with the sunrise surf & talk box, you will need different network cables.

- If you connect your computer directly – without a switch or hub – to the sunrise surf & talk box, you should use a cross-link network cable 10/100 BaseT with STP (shielded twisted pair).
- If you operate the sunrise surf & talk box over a switch or hub, you should use a 10/100 BaseT network cable, wired 1:1 and with STP.

Note: If you use a LAN connection for the connection between your computer and the sunrise surf & talk box, you can deactivate the WLAN interface of the sunrise surf & talk box. This is recommended for security reasons. To do this, log in to the administration interface of sunrise surf & talk box (see Logging in and logging out, pg. 25). Then select the **Connection** tab in the **WLAN** menu and click on the **Off** option field next to the **WLAN interface**.

Microsoft Windows XP: Setting up a LAN connection.

In order to be able to use a LAN connection between your PC/laptop and the sunrise surf & talk box, the following steps are required:

1. Connect network cable
2. Configure LAN connection
3. Deactivate any proxy server

Step 1 – Connect network cable

1. Insert the network cable into the appropriate port on your computer.
2. Insert the other end of the cable into the jack marked LAN on the sunrise surf & talk box.

Step 2 – Configure LAN connection

1. Click on the START button of the taskbar of your computer and select **Settings > Network Connections**. The **Network Connections** dialogue is opened.
2. Right-click on **LAN Connection** and select Properties from the context menu. The **Local Area Connection Properties** dialogue is opened.
3. Make sure that on the **General** tab the box for Internet **Protocol (TCP/IP)** is checked.
4. Highlight **Internet protocol (TCP/IP)** and click on the **Properties** button. The **Internet Protocol (TCP/IP) Properties** dialogue is opened.

5. On the **General** tab, click on the **Obtain an IP address automatically** option field and then click on the **OK** button.
6. In the **Local Area Connection Properties** dialogue, click on the **Close** button.
You will be asked, if necessary, to restart your computer.

Step 3 – Deactivate proxy server

If you use a proxy server to access the Internet, deactivate it.

Note: As an example, the following describes the procedure for Microsoft Internet Explorer. If you use a different browser, please read the appropriate user documentation.

1. Start Internet Explorer.
2. Select **Tools > Internet Options**.
The **Internet Options** dialogue is opened.
3. Click on the **Connections** tab.
4. Click on the **LAN Settings** button in the **Local Area Network (LAN) Settings** area.
The **Local Area Network (LAN) Settings** dialogue is opened.
5. Deactivate the following box:
 - **Automatically detect settings**
 - **Use a proxy server for your LAN.**
6. In order to save this configuration, click on the **OK** button.
7. Close the Internet Options dialogue by clicking on the **OK** button.

Now you can continue with Step 6 – *Connect to the Internet*, pg. 12.

Microsoft Windows 2000: Setting up a LAN connection.


In order to be able to use a LAN connection between your PC/laptop and the sunrise surf & talk box, the following steps are required:

1. Connect network cable
2. Configure LAN connection
3. Deactivate any proxy server

Step 1 – Connect network cable

1. Insert the network cable into the appropriate port on your computer.
2. Insert the other end of the cable into the jack marked LAN on the sunrise surf & talk box.

Step 2 – Configure LAN connection

1. Click on the **START** button of the taskbar of your computer and select **Settings > Network and Dial-up Connections**.
2. Right-click on  **LAN Connection** and select **Properties** from the context menu.
3. Make sure that on the **General** tab the box for **Internet Protocol (TCP/IP)** is checked.
4. Highlight **Internet protocol (TCP/IP)** and click on the **Properties** button.
The **Internet Protocol (TCP/IP) Properties** dialogue is opened.
5. On the **General** tab, click on the **Obtain an IP address automatically** option field and then click on the **OK** button.
6. In order to save the configuration, click on the **OK** button in the **Local Area Connection Properties** dialogue.
You will be asked, if necessary, to restart your computer.

Step 3 – Deactivate proxy server

If you use a proxy server for access to the Internet, deactivate it.

Note: The following describes the procedure for Microsoft Internet Explorer. If you use a different browser, please read the appropriate user documentation.

1. Start Internet Explorer.
2. Select **Tools > Internet Options**.
The **Internet Options** dialogue is opened.
3. Click on the **Connections** tab.
4. Click on the **LAN Settings** button in the **Local Area Network (LAN) Settings** area.
The **Local Area Network (LAN) Settings** dialogue is opened.

5. Deactivate the following box:
 - **Automatically detect settings**
 - **Use a proxy server for your LAN.**
 6. In order to save this configuration, click on the **OK** button.
 7. Close the **Internet Options** dialogue by clicking on the **OK** button.
- Now you can continue with Step 6 – *Connect to the Internet*, pg. 12.

Basics of Administration.

The sunrise surf & talk box is configured and administered in the administration interface. No installation is required on your PC/laptop in order to be able to work with the administration interface. You only need a browser.

Logging in and Logging out.

This is how you log in to the administration interface of the sunrise surf & talk box

1. Start your browser.
2. Enter `http://192.168.0.1` into the address line of the browser and confirm the entry with ENTER. You can also use the link "sunrise surf & talk box Login" on the CD-ROM.

Note: If you have already allocated a different IP address to the sunrise surf & talk box, please enter this address (see Prof-Settings: Changing a static fixed IP address, pg. 47).

3. Enter your user name and your password.
Both the user name and password are set as «admin» as default factory settings. The user name cannot be changed.
4. Click on the **OK** button.
When you first log in to the administration interface, you will be required to change your password.
5. Enter your new password into the **New password** and **Confirm new password** fields.
6. Click on the **OK** button.

Note: Your password may not contain more than 50 characters. Please note that a distinction is made between upper and lower case letters in the password. Therefore, for the sunrise surf & talk box, «password» and «Password» are different passwords.

7. Log in with the user name «admin» and your new password.

This is how you log out of the administration interface of the sunrise surf & talk box

To leave the administration interface, simply close your browser.

Changing your password.

The sunrise surf & talk box is delivered from the factory with the standard password «admin» for access to the administration interface. In order to prevent any unauthorized access to the device, you should change this password.

For security reasons, it is also to be recommended that you change the password at regular intervals.

This is how you change your password

1. Log in to the administration interface of sunrise surf & talk box (see *Logging in and logging out*, pg. 25).
2. Click on the **password** menu.
3. Enter your current password into the **old password** field.
4. Enter your new password into the **New password** and **Confirm new password** fields.
Choose your new password carefully. The password should contain letters, numbers and special characters. It may be no longer than 50 characters.
5. Click on the **OK** button.
6. To leave the administration interface, simply close your browser.

Note: If you have forgotten your changed password, reset the sunrise surf & talk box to the factory settings (see *Restore factory settings*, pg. 30). Then the password will again be «admin».

Changing the PIN of the SIM card for sunrise surf & talk.

The sunrise surf & talk box offers you the opportunity to change the PIN of the SIM card used for sunrise surf & talk. This makes sense for security reasons.

This is how you change the PIN of the SIM card for sunrise surf & talk

1. Log in to the administration interface of sunrise surf & talk box (see *Logging in and logging out*, pg. 25).
2. Click on the **Change PIN** tab in the **UMTS/GPRS** menu.
3. Enter the current PIN into the **PIN** field.
4. Enter your new PIN into the **New PIN** and **Confirm new PIN** fields. The PIN can be any combination of numbers of your choosing.

5. Click on the **OK** button.

The PIN is securely stored in the sunrise surf & talk box. You have to enter the PIN again after the following actions:

- The SIM card inserted for sunrise surf & talk was exchanged.
- You have changed the PIN of the SIM card inserted for sunrise surf & talk.
- You have installed a new firmware.
- The sunrise surf & talk box was reset to the factory settings.

6. To leave the administration interface, simply close your browser.

Unlocking the SIM card for sunrise surf & talk.

If you enter the PIN for the SIM card for sunrise surf & talk incorrectly three times, the SIM card will be blocked. You can release this block by entering the PUK (Personal Unblocking Key).

This is how you unblock the SIM card for sunrise surf & talk

1. Log in to the administration interface of sunrise surf & talk box (see *Logging in and logging out*, pg. 25).
2. Click on the **Enter PUK** tab in the **UMTS/GPRS** menu.
3. Enter the PUK of the SIM card for sunrise surf & talk in the **PUK** and **Confirm PUK** fields.
4. Enter your new PIN into the **New PIN** and **Confirm new PIN** fields. The PIN can be any combination of numbers of your choosing.
5. Click on the **OK** button.
6. To leave the administration interface, simply close your browser.

Setting the time and date.

The sunrise surf & talk box stores the current time and the current date. You can set the time and date manually or synchronize it with the help of the Network Time Protocol (NTP).

This is how you set the time and date manually

1. Log in to the administration interface of sunrise surf & talk box (see *Logging in and logging out*, pg. 25).
2. Click on the **Time** tab in the **Tools** menu.
3. Enter the corresponding data in the **Time** and **Date** fields.
4. Click on the **Set time/date manually** button.
5. To leave the administration interface, simply close your browser.

This is how you synchronize the time and date with the help of NTP

1. Log in to the administration interface of sunrise surf & talk box (see *Logging in and logging out*, pg. 25).
2. Click on the **Time** tab in the **Tools** menu.
3. Enter the desired NTP server in the **NTP Server** field.
4. Click on the **Change configuration** button.
5. Click on the **Request time** button.

A connection with the Internet will be automatically established.

6. To leave the administration interface, simply close your browser.

Configuring automatic disconnection.

The sunrise surf & talk box is configured from the factory so that connection to the Internet via sunrise mobile broadband is automatically aborted when your session has been inactive for 480 minutes. The session is inactive when, for example, during this time no access to webpages has occurred or no data traffic has taken place.

As soon as activity again takes place, the connection will be automatically re-established.

Note: If you use programs on your PC/laptop that automatically establish a connection with the Internet in the background, data traffic will occur and the connection will not be disconnected. Additional costs could accrue due to this. Therefore, it is to be recommended that you deactivate the mobile broadband interface when not using the Internet (see *Disconnecting from the Internet*, pg. 29). This way it will also not be possible for programs in the background to establish a connection to the Internet.

This is how you configure automatic disconnection

1. Log in to the administration interface of sunrise surf & talk box (see *Logging in and logging out*, pg. 25).
2. Click on the **Connection** tab in the **UMTS/GPRS** menu.
3. In the **Disconnect after** field, enter after how much time (in minutes) of inactivity the connection should be automatically disconnected.

A maximum of 999 minutes can be entered.

4. Click on the **OK** button.
5. To exit the administration interface, simply close your browser.

Re-establishing the connection automatically

The sunrise surf & talk box is configured from the factory so that Internet connection is automatically established via mobile broadband with the corresponding activity from your computer (e.g. by calling up a webpage in your browser).

Configuring the APN (Access Point Name)

You have access to the Internet via the APN of the sunrise surf & talk box. You can freely configure the APN.

This is how you configure the APN

1. Log in to the administration interface of sunrise surf & talk box (see *Logging in and logging out*, pg. 25).
2. Click on the **APN** tab in the **UMTS/GPRS** menu.
3. Enter the designation for the new access point name in the **UMTS/GPRS APN** (for sunrise: **internet**) field.
4. Click on the **OK** button.
5. To leave the administration interface, simply close your browser.

Disconnecting from the Internet.

This is how you disconnect the connection to the Internet

1. Log in to the administration interface of sunrise surf & talk box (see *Logging in and logging out*, pg. 25).
2. Click on the **Connection** tab in the **UMTS/GPRS** menu.
3. Click the option field **Off** for **UMTS/GPRS** interface.
4. Click on the **OK** button.
5. To leave the administration interface, simply close your browser.

Note: In the **Disconnect after** field, you can enter a length of time (in minutes) after which the connection to the Internet is automatically disconnected due to inactivity.

Restarting the sunrise surf & talk box.

This is how you restart the sunrise surf & talk box

1. Log in to the administration interface of sunrise surf & talk box (see *Logging in and logging out*, pg. 25).
2. Click on the **Restart** tab in the **Tools** menu.
3. Click on the **Restart** button.
4. Confirm the following security query by clicking on the **OK** button.

Restarting the sunrise surf & talk box takes about 60-90 seconds. When you reopen the administration interface, you will have to log in again with your user name and your password.

Note: You can also restart the sunrise surf & talk box on the device itself by pushing the reset button (see below Restore factory settings). Please note that this will cause all user-defined settings to be lost (e.g. a changed password). Then the password will again be «admin».

Restore factory settings (reset).

You can reset the sunrise surf & talk box to the factory settings. Doing this will erase all user-defined settings, including the password changed for the administration interface. Then the password will again be «admin». The reset function can be activated either via the administration interface or directly on the device by pressing the reset button.

This is how you execute a reset via the administration interface

1. Log in to the administration interface of sunrise surf & talk box (see *Logging in and logging out*, pg. 25).
2. Click on the **Reset** tab in the **Tools** menu.
3. Click on the **Reset** button.
4. Confirm the following security query by clicking on the **OK** button.
Any settings you made for the sunrise surf & talk box will be deleted. Afterwards, the device will automatically be restarted.

This is how you execute a reset on the device

In order to execute the reset, you will need a sharp object, e.g. a paperclip.

1. Carefully guide the pointed object into the small hole above the telephone connection; there you will find the reset button.
2. Keep the pointed object pressed on the reset button for at least four seconds.
3. Let go of the reset button again.
The sunrise surf & talk box restarts. This process lasts about 60-90 seconds.

Switching the SIM card for sunrise surf & talk.

Step 1 – Removing the old SIM card for sunrise surf & talk

1. If necessary, disconnect the Internet connection (i.e. the connection to the mobile broadband network from sunrise).
2. In order not to damage the sunrise surf & talk box while changing the SIM card for sunrise surf & talk, pull the power cable not only out of the wall outlet but also out of the device.
3. Carefully move the sliding cover of the SIM card insert on the base of the device to the right. The SIM card for sunrise surf & talk will release itself from the holder.
4. Remove the SIM card for sunrise surf & talk.

Step 2 – Inserting and enabling the new SIM card for sunrise surf & talk

1. Insert the new SIM card for sunrise surf & talk. Insert the SIM card for sunrise surf & talk into the compartment. The contacts should face upwards, the SIM card for sunrise surf & talk must click into place. Once the sunrise surf & talk SIM card for is fully inserted, the sliding cover returns to its original position.
2. Connect the smaller plug of the power supply to the upper round entrance to the sunrise surf & talk box.
3. Connect the power supply of the sunrise surf & talk box to the power outlet.
4. Log in to the administration interface of sunrise surf & talk box (see *Logging in and logging out*, pg. 25).
5. Click on the **Enter PIN** tab in the **UMTS/GPRS** menu.
6. Enter the PIN of the newly inserted SIM card for sunrise surf & talk in the **PIN** and **Confirm PIN** fields.
7. Click on the **OK** button.
8. To leave the administration interface, simply close your browser.

Conducting the self-test.

The sunrise surf & talk box will conduct a self-test, if desired. This test checks the major hardware and software components of the device. If problems are found, they are then described in the administration interface.

This is how you conduct the self-test of the sunrise surf & talk box

1. Log in to the administration interface of sunrise surf & talk box (see *Logging in and logging out*, pg. 25).
2. Click on the **Firmware** tab in the **Status** menu.
Under **Self-test of the sunrise surf & talk box** you will find a list of problems found and the affected system components. In addition, an error code will be displayed to describe an internal system condition. This information will help Technical Support to solve your problem.
3. To leave the administration interface, simply close your browser.

Updating firmware.

Firmware updates for the sunrise surf & talk box are provided by sunrise. You can download the updates at www.sunrise.ch/surfandtalk

Note: When installing a firmware update, the sunrise surf & talk box is reset to factory settings. All user-defined settings (e.g. a changed password) are then lost. Then the password will again be «admin».

This is how you update the firmware

1. Start your browser.
2. Enter www.sunrise.ch/surfandtalk into the address line of your browser and confirm the entry with ENTER.
3. Search for available updates using the search function of this website.
4. Download the update file and store it on your PC/laptop.
5. Log in to the administration interface of sunrise surf & talk box (see *Logging in and logging out*, pg. 25).
6. Click on the **Firmware** tab in the **Tools** menu.
7. Select the update file you would like to download using the **Browse** button.
You can also manually enter the file path into this field.

Please note! The installation of the firmware update is a sensitive process. Make sure that the update file was completely downloaded and is not damaged. Furthermore, it is important that the sunrise surf & talk box is not turned off during the update.

8. Click on the **Start** button and wait until the installation of the firmware update is completed.
The sunrise surf & talk box will restart.



Phoning.

The SIM card for sunrise surf & talk

For the telephone functions, the sunrise surf & talk box requires the use of a sunrise surf & talk SIM card. If you wish to use the telephone functions, you must first activate the SIM card by entering your PIN. The PIN will be stored in the sunrise surf & talk box. If you replace the SIM card, you must enter the PIN for the new card when you insert it.

Note: The stored PIN for the sunrise surf & talk box SIM card will remain stored in the sunrise surf & talk box until a new PIN is entered. The PIN remains stored in the sunrise surf & talk box even if there is a power interruption.



Activating the SIM card for sunrise surf & talk

1. Lift the telephone handset.
«Please enter PIN number» will appear on the display, and you will hear a dial tone with an additional beep.
2. Press the  key, enter your PIN, and confirm your entry with the  key.
If the PIN you enter is correct, you will hear a confirmation tone, and on the display you will see the time, the date, and the network reception bar.
If the PIN you enter is incorrect, you will hear a warning tone, and the message «Incorrect PIN number. X attempts remaining» will appear on the display.

3. Replace the handset.

If you enter the wrong PIN for the SIM card three times, the SIM card will be blocked for your protection. You can remove this block by entering your PUK (Personal Unblocking Key). You received this number together with your copy of the service agreement.

Unblocking the SIM card for sunrise surf & talk

1. Lift the telephone handset.
2. Press the  key, enter your PUK, and confirm your entry with the  key.
If the PUK you enter is correct, you will hear a confirmation tone, and on the display you will see the time, the date, and the network reception bar.
If the PUK you enter is incorrect, you will hear a warning tone, and the message «Incorrect PUK number. X attempts remaining» will appear on the display.
Replace the handset.

Note: If you enter the wrong PUK ten times, the PUK will be blocked.

Changing the PIN for the sunrise surf & talk SIM card

Note: The PIN for the sunrise surf & talk SIM card can be changed only through the administrative interface of your sunrise surf & talk box.

1. Lift the telephone handset and wait for the dial tone.
2. Enter the key sequence **# 9 9 #**.
3. Enter the old PIN.
4. Press the ***** key.
5. Enter the new PIN.
This may be any four- to eight-digit number of your choice.
6. Press the ***** key.
7. To confirm the new PIN, enter it once more.
8. Press the **#** key and wait for the confirmation signal.
9. Replace the handset.

Using the telephone.

As soon as a telephone has been connected to the sunrise surf & talk box and the PIN has been entered, you may begin making calls. This section explains how to use the various telephone functions.

Note: The telephone connected to the sunrise surf & talk box must support the DTMF (Dual Tone Multi-Frequency) dialset.

Calling.

Making a call

1. Lift the telephone handset.
The unit will test the strength of the GSM signal. The signal strength is indicated by a connection bar on the display. If the connection is good, you will hear a dial tone.
2. Enter in the usual way the telephone number you wish to call. After three seconds a connection will be established (there are technical reasons for this delay).

Emergency calls

You can make emergency calls even if the sunrise surf & talk SIM card is blocked or has not been installed. The sunrise surf & talk box supports the standardized GSM emergency number, 112.

Call Forwarding.

You can have all of your calls forwarded automatically to another line of your choice, either immediately (**CF-unconditional**), after 20 seconds (**CF-20**), if your line is busy (**CF-busy**), or if your sunrise surf & talk box is turned off (**CF-unit off**). The destination number you enter to activate call forwarding must not be a blocked number.

Activating call forwarding

1. Lift the telephone handset and wait for the dial tone.
2. Enter the key sequence for the desired type of call forwarding.

Call forwarding type	Key sequence for activation
CF-unconditional	* 2 1 *
CF-20	* 6 1 *
CF-busy	* 8 7 *
CF-unit off	* 6 2 *

3. Enter the destination number.
4. Press the # key and wait for the confirmation tone.
5. Replace the handset.

Note: If **CF-unconditional** has been activated on your line, you will hear a special dial tone.

The **CF-20** and **CF-busy** versions can be activated simultaneously, each different destination numbers for each.

CF-unconditional has priority over the other three versions and cannot be overwritten by any of them. If **CF-unconditional** has been activated and you wish to enable another type of CF, you must first deactivate **CF-unconditional** or **deactivate all CF**, then enable the new CF.

Deactivating call forwarding

1. Lift the telephone handset and wait for the dial tone.
2. Enter the key sequence for the call forwarding setting you wish to delete.

Call forwarding type	Key sequence for deactivation
CF-unconditional	# 2 1 #
CF-20	# 6 1 #
CF-busy	# 8 7 #
CF-unit off	# 6 2 #
deactivate all CF	# 2 2 #

3. Wait for the confirmation tone.
4. Replace the handset.

Call waiting, flash function.

The call waiting function enables others to reach you even while you are on the phone. The flash function provides various means for holding conversations on two lines at once.

Note:

If you wish to use this function, your telephone must have the **R** key (flash key with a hook flash function and a flash time between 170 and 310 ms).

On older phones that have no **R** key, use the off hook key.

Activating call waiting

1. Lift the telephone handset and wait for the dial tone.
2. Enter the key sequence *** 4 3 #** and wait for the confirmation tone.
3. Replace the handset.

Deactivating call waiting

1. Lift the telephone handset and wait for the dial tone.
2. Enter the key sequence **# 4 3 #** and wait for the confirmation tone.
3. Replace the handset.

Terminating the original call

1. You hear the call waiting tone during a call.
2. If you wish to accept the incoming call, you have 30 seconds in which to terminate the first call by replacing the handset.
3. After the telephone rings, lift the handset again.

Rejecting the incoming call

1. You hear the call waiting tone during a call.
2. If you do not wish to accept the incoming call, enter the key sequence **R** **0** . The call holding tone will not be heard during the remainder of the existing call.

Holding

Putting an existing call on hold to accept a second call

1. You hear the call waiting tone during a call.
2. If you wish to accept the second call, you have 30 seconds in which to press the **R** key (hook flash function).
3. Press the **2** key.
The first connection remains on hold (inactive). The second connection is accepted (active).

Alternating

Switching back and forth between two calls

1. Press the **R** key and wait for the dial tone.
2. Press the **2** key.
The first connection is now active again. The second connection is on hold.

Flash function

Establishing another connection during a call

1. Press the **R** key and wait for the dial tone.
2. Enter the number you wish to call.

The first connection is now inactive. The second connection is established.

Note: The dialing process can be terminated by pressing the **R** key repeatedly.

Selectively terminating a call

1. Press the **R** key and wait for the dial tone.
2. Press the **1** key.

The active connection is terminated.

Note: To remind you of a connection that is still active, a ring signal will sound after you replace the handset (up to three times, for a maximum of 15 seconds).

Three-way conference calling.

After you have already established one connection, you would like to accept a second, incoming call and bring the caller into the conversation. If you wish to use this function, your telephone must have the **R** key.

Note: The telephone's **R** key must support a hook flash function and have a flash time between 170 and 310 ms. On older phones that have no key, use the off hook key.

Establishing an additional connection

1. Press the **R** key and wait for the dial tone.
2. Enter the number you wish to call.

The first connection is now inactive. The second connection has been activated.

or

Bring the incoming caller into the conversation

1. You hear the call waiting tone.
2. If you wish to accept the second call, you have 30 seconds in which to press the **R** key (hook flash function).
3. Press the **2** key.

The first connection is on hold (inactive). The second connection is accepted (active).

Interconnecting

- 1. Press the **R** key and wait for the dial tone.
- 2. Press the **3** key.

All parties are now connected.

Terminating

You can terminate the conference by replacing the handset.

Caller identification.

Incoming calls

You can see the caller's number on the sunrise surf & talk box display. This feature works only if display of the caller's number has not been blocked by the caller.

Outgoing calls

Your own number will also appear on the display of the party you are calling. If the party you are calling does not immediately accept your call, that party can call you back later simply by pressing a button, as your number will remain stored in that party's call list. You can also block display of your own number, for an individual call or for all calls.

Changing the settings for caller identification

- 1. Lift the telephone handset and wait for the dial tone.
- 2. Enter one of the following key sequences.

Caller identification	Key sequence
Deactivate	* 3 1 3 1 *
Activate	* 3 3 *

- 3. Replace the handset.

Blocking caller identification for a single call

- 1. Lift the telephone handset and wait for the dial tone.
- 2. Enter the key sequence *** 3 1 #**.
- 3. Enter the number you are calling.
Your number will not be displayed to the party you are calling.
- 4. Make your call in the usual manner.
- 5. Replace the handset.

The call display block will be deactivated automatically when you hang up.

Managing SMS messages.

The sunrise surf & talk box contains an SMS management interface that enables you to:

- get an overview of the SMS messages that you have sent and received
- use an editor form to send SMS messages
- use an address book form to record and store destination numbers

SMS menu

1. Log in to the sunrise surf & talk box's administrative interface (see *Logging in and logging out*, p.25).
2. Select the **SMS** menu.
Here you will see on various tabs information concerning individual aspects of SMS management.

«SMS Mailbox» tab

Here you will find a comprehensive overview of all your SMS messages, including those just received, those already received and those yet to be transmitted.

«Write SMS» tab

With this form-based editor you can write SMS messages and enter the addressee's telephone number in the form field at the top. To transmit, press the «Send SMS» button.

«Number Directory» tab

Here you can enter telephone numbers and the names of those they belong to in a telephone list:

1. In the empty form field in the «Name» column enter the name of your contact.
2. In the empty form field in the «Number» column enter your contact's number.
3. Press the «Add» button.
To delete an entry, select it with the appropriate radio button and press «Delete.»
To change an entry, select it with the appropriate radio button, press «Change» and then proceed as described under points 1 – 3.

Note: Only numbers from 0 – 9 may appear in the “Number” column; special characters (e.g., !\$&=#*+@ etc.) will result in error messages.

You can also write an SMS directly to a person listed in your number directory.

Select the desired contact person by the appropriate radio button and press the «Send SMS» button. The telephone number will be transferred automatically into the »Number« form field on the «Write SMS» tab.

Note: It is possible to transmit an SMS to more than one address, but a comma or semicolon must be inserted between the individual telephone numbers.

Example: 0761234567;0761234567;0761234567

Security settings in detail.

Basic firewall protection.

Note: These basic security settings do not guarantee the security of the connection between the sunrise surf & talk box and your PC or laptop. This is true especially if you are using a WLAN connection (see *Additional protection through encryption*, p. 43).

The sunrise surf & talk box is equipped with a firewall and configured by the manufacturer in such a way as to ensure that your data are protected from the moment your PC or laptop is connected. It will prevent access from the Internet to the sunrise surf & talk box and, consequently, to your PC or laptop.

The sunrise surf & talk box firewall can be disabled if necessary (from the menu choose **Security**, then the **Firewall** tab). Please note that this will also disable port forwarding. Port forwarding is defined within the system by firewall rules.

Network Address Translation (NAT)

The sunrise surf & talk box supports NAT. NAT refers to the process of uncoupling a public IP address from a private IP address range. Using NAT, all of the PCs or laptops in your network can share a single public IP address. This IP address is assigned to your sunrise surf & talk box via the sunrise mobile broadband network. It is the only IP address visible to third parties outside your network (such as on the Internet).

The local IP addresses, which are assigned to the computers in your network by the sunrise surf & talk box's DHCP server, remain private and inaccessible from the Internet. In this way you are protected from external attacks.

Firewall rules

The sunrise surf & talk box firewall operates according to certain rules. The rules determine the incoming and outgoing flow of data. The firewall's basic configuration blocks unauthorized incoming data connections from the Internet while allowing outgoing data connections to the Internet. This configuration enables you to navigate websites freely.

Denial of service attacks (DoS)

DoS attacks flood your network with more requests than it can process. Although such attacks cannot damage the PCs or laptops in your network, DoS attacks can slow down your network processes or bring them to a halt. The sunrise surf & talk box blocks such attacks automatically. You do not need to set up firewall rules for incoming data traffic.

Restricting outgoing services

The firewall has been configured by the manufacturer to allow all outgoing services. You may, however, specify that only certain outgoing services are to be enabled. User of your network will then be unable to use services that have not been specified.

To restrict outgoing services:

1. Log in to the sunrise surf & talk box's administrative interface (see *Logging in and logging out* p.25).
2. Select the **Firewall** tab in the **Security** menu.
3. Next to **Services**, enable the **Allow following outgoing services** option.
4. Click the **Add Service button**.
5. In the **Name**, **Type**, **Start Port** and **End Port** fields describe the service you wish to enable.
6. Click the **Save** button.
7. In the same way, add to the list any other services you may wish to enable.
8. Click the **OK** button.
9. To leave the administrative interface, close your browser.

Additional protection through encryption.

Regardless of whether you are using a LAN connection or a WLAN connection, your data are transmitted via computer networks as plain text if they have not been encrypted. Anyone with access to your network would be able to read and manipulate the data. You can reduce this security risk to a minimum by using encryption software. This automatically converts your data to an unreadable form.

The sunrise surf & talk box supports two types of encryption for WLAN connections:

- WEP (Wired Equivalent Privacy), see the following section, p. 43
- WPA (Wi-Fi Protected Access), see WPA encryption, p. 44

The sunrise surf & talk box also offers the following options for increasing your WLAN access security:

- Change the SSID, see Changing the SSID, p. 45
- Disable SSID transmission, see Disabling SSID transmission, p. 45
- Access control through MAC addresses, see Using address filters to control access, p. 46

WEP encryption

WEP encryption works by generating a key that is made known to every user on the network and is used to encrypt and decrypt data. To maintain the effectiveness of WEP, your encryption code should be changed on a regular basis.

How to configure WEP encryption

1. Log in to the sunrise surf & talk box's administrative interface (see *Logging in and logging out*, p.25).
2. Select the **Encryption** tab in the **Security** menu.
3. Select the WEP 128 entry from the Encryption Mechanism list.
This is the highest security level for WEP, which ensures a maximum level of secure encryption.
4. Enter any string of characters in the **Pass phrase** field.

The pass phrase is used to automatically generate the WEP key. The character string you enter should contain no more than 26 characters and must not include spaces.

5. Click the **Generate Key** button.

Your pass phrase will be converted to hexadecimal form. The length of the key generated will vary according to the level of security.

- WEP 64: 10 characters
- WEP 128: 26 characters

6. **Make a note of the key that is generated** and click the **OK** button. The WLAN connection to the sunrise surf & talk box will be closed. In the list of available wireless network connections, you will see that the network is already displayed as a WEP encrypted wireless network.

7. Reconnect your PC or laptop via the WLAN and enter in the key that was generated.

WPA encryption

WPA encryption protects your network from unauthorized access. It works similarly to WEP encryption, but with dynamic, changing keys.

Note: If your PC or laptop supports WPA encryption (e.g., WPA1.x, WPA2.0), it is preferable to WEP encryption. If you do not know for certain which standards your PC or laptop supports, contact your computer's manufacturer.

How to configure WPA encryption

1. Log in to the sunrise surf & talk box's administrative interface (see *Logging in and logging out*, p.25).

2. Select the **Encryption** tab in the **Security** menu.

You may choose between WPA1+2. WPA2 is generally the preferred choice.

3. Enter any sequence of characters in the **Key** field.

4. Click the **OK** button.

The WLAN connection to the sunrise surf & talk box will be closed.

In the list of available wireless network connections, you will see that the network is already displayed as a WPA encrypted wireless network.

5. Reconnect your PC or laptop via the WLAN and enter into your PC or laptop the key that was generated.

Changing the SSID

The SSID (Service Set Identifier) is the sunrise surf & talk box's WLAN network identifier. The SSID set by the manufacturer is "sunrise surf & talk box".

You should change the SSID in order to prevent confusion with other sunrise surf & talk boxes in your vicinity, which may be using the same SSID. By changing the SSID you will avoid becoming connected inadvertently with a neighboring sunrise surf & talk box.

How to change the SSID

1. Log in to the sunrise surf & talk box's administrative interface (see *Logging in and logging out*, p.25).
2. Select the **Connection** tab in the **WLAN** menu.
3. Enter the desired identifier in the **SSID** field.
The SSID may contain no more than 32 characters. It may contain both letters and numbers. An SSID is case-sensitive.
4. Make a note of the SSID and click the **OK** button.
The WLAN connection to the sunrise surf & talk box will be closed.
The new SSID is displayed in the list of available wireless network connections.
5. Reconnect your PC or laptop via the WLAN.

Disabling SSID transmission

By default the sunrise surf & talk box transmits the SSID. This makes it easier to locate the WLAN network on your computer and to connect the two. Transmission of the SSID can be disabled, however, if you know the sunrise surf & talk box SSID and do not want it to be visible to other users.

Note: Disable SSID transmission only after you have already successfully established a connection between the sunrise surf & talk box and your computer. Disabling should be carried out only as the last step.

How to disable SSID transmission

1. Log in to the sunrise surf & talk box's administrative interface (see *Logging in and logging out*, p.25).
2. Select the **Connection** tab in the **WLAN** menu.
3. Next to **SSID transmission** enable the **Off** option.
4. Click the **OK** button.
5. This may close the WLAN connection to the sunrise surf & talk box. If that is the case, enter the SSID known to you in the **SSID** field.

Using address filters to control access

Every PC or laptop connected to the sunrise surf & talk box via a WLAN or LAN has a globally unique MAC (Media Access Control) address. This address is assigned by the device's manufacturer. You can control which devices have access to your sunrise surf & talk box's WLAN network by adding the MAC addresses of those devices to filter lists.

To create the filter lists, you need the MAC addresses of the connected computers. These usually appear on a label on the device itself or directly on the built-in WLAN card. If there is any doubt, contact the manufacturer of your PC or laptop.

How to control access using filter lists

1. Create the filter lists. To do this, log in to the sunrise surf & talk box's administrative interface (see *Logging in and logging out*, p.25).
2. Select the **WLAN Address Filter** tab in the **Security** menu.
3. In the **Add Address** field, enter the MAC address of the computer you wish to allow or deny access to.
4. Depending on whether you wish to allow or deny the computer access, enable the **Allowed** or **Blocked** option next to the **To Filter List** option.
5. Click the **Add** button.

The MAC address will be added to the appropriate filter list.

6. Follow these steps if you wish to add any other MAC addresses to the filter lists.
7. Specify which filter list is to be used. Next to **Active Filter List**, enable the desired option:
 - **Off:** If you enable this option, MAC addresses will not be checked. There will be no restrictions on access.
 - **Allowed Addresses:** If you enable this option, only those computers will be allowed access whose MAC addresses appear in the **Allowed Addresses** filter list.
 - **Blocked addresses:** If you enable this option, those computers will be denied access whose MAC addresses appear in the **Blocked Addresses** filter list.
8. Click the **OK** button.

Pro settings.

This section and the configuration options it describes are intended for network administrators.

Changing a static IP address.

You can change the static IP address of the sunrise surf & talk box, which is used for access over a LAN or WLAN. The manufacturer has set the IP address to 192.168.0.1.

How to change the static IP address

1. Log in to the sunrise surf & talk box's administrative interface (see *Logging in and logging out*, p.25).
2. Select the **IP Address** menu.
3. Next to **Address**, enable the **Static** option.
4. Enter the desired configurations in the **IP Address**, **IP Subnet Mask** and **IP Broadcast Address** fields.
5. Click the **OK** button.
Because the IP address has changed, the connection to the administrative interface will be interrupted. If you wish to access the administrative interface at a later time, enter the changed IP address in the address field of your browser.
6. To leave the administrative interface, close your browser.

Note: Keep in mind that changing the static IP address automatically changes the IP address range of the DHCP server. This happens so that IP address conflicts are avoided.

Configuring the DHCP server.

The sunrise surf & talk box contains an integrated DHCP server. This server dynamically assigns an IP address to the computers connected to your network. The manufacturer has set the IP address range of the DHCP server to addresses from 192.168.01.10 to 192.168.0.200.

You can change or disable the DHCP server's IP address range. You can also configure the DHCP server in such a way that certain computers connected to the sunrise surf & talk box will always be assigned the same IP addresses. This is useful, for example, if you wish to access the computer through its IP address.

How to change the IP address range of the DHCP server

1. Log in to the sunrise surf & talk box's administrative interface (see *Logging in and logging out*, p. 25).
2. Select the **Address Range** tab in the **DHCP Server** menu.

3. Enter the desired IP addresses in the **IP Address Range** fields.
4. Click the **OK** button.
The connection to the sunrise surf & talk box's administrative interface will be interrupted.
5. Reenter the IP address in your browser's address field.

How to assign static IP addresses through the DHCP server

1. Log in to the sunrise surf & talk box's administrative interface (see *Logging in and logging out*, p.25).
2. Select the **Static Addresses** tab in the **DHCP Server** menu.
3. Click the **Add** button.
4. In the **MAC Address** field, enter the MAC address of the computer connected to the sunrise surf & talk box and to which you would like to assign a static IP address.
5. In the **IP Address** field, enter the last digits of the IP address that you wish to assign to the computer.
The first part of the IP address that you are assigning is predetermined by the IP address of the sunrise surf & talk box, as the IP addresses must come from the same address range.
6. Click the **Save Address** button.
You can change an assigned static IP address. Mark the entry you wish to change in the list and click the **Edit** button. To delete an assigned IP address, mark the appropriate entry in the list and click the **Delete** button.
7. To leave the administrative interface, close your browser.

Configuring dynamic DNS.

Note: To use the DynDNS.org service, you will need a user account at www.dyndns.org.

With the sunrise surf & talk box you can configure the DynDNS.org service. You can select a domain name, and DynDNS.org will assign this name to the dynamic mobile broadband-IP address that was assigned to you by the sunrise mobile broadband network. This will make it possible for requests from the Internet to be directed to your dynamic mobile broadband IP address. This IP address is automatically reported to DynDNS.org every time a mobile broadband connection is set up and, therefore, every time the sunrise surf & talk box is restarted.

How to configure dynamic DNS

1. Log in to the sunrise surf & talk box's administrative interface (see *Logging in and logging out*, p. 25).
2. Select the **DynDNS** tab in the **Tools** menu.
3. Enter your data in the **Domain Name**, **Login** and **Password** fields.
4. Click the **Save** button.
5. To leave the administrative interface, close your browser.

Configuring port forwarding.

You can specify a service that you wish to be forwarded from the Internet to a computer within your local area network.

Note: Port forwarding is possible only when the surf & talk box firewall is enabled.

How to configure port forwarding

1. Log in to the sunrise surf & talk box's administrative interface (see *Logging in and logging out*, p. 25).
2. Select the **Port Forwarding** tab in the **Security** menu.
3. Click the **Add Service** button.
4. Enter your data into the fields.
5. Click the **Save** button.
6. To leave the administrative interface, close your browser.

Selecting a WLAN channel.

You can select a WLAN channel and thereby determine on which WLAN frequency the sunrise surf & talk box will transmit and receive. Selecting a channel with a good transmission quality improves the connection speed between the sunrise surf & talk box and the PCs or laptops connected through the WLAN.

How to select a WLAN channel

1. Log in to the sunrise surf & talk box's administrative interface (see *Logging in and logging out*, p.25).
2. Select the **Channel Selection** tab in the **WLAN** menu.
3. If you would like the sunrise surf & talk box to select the channel with the best transmission quality automatically, click the **Implement** button.
The automatic channel selection function checks the quality of all available channels one by one; this process lasts roughly twelve seconds. It may happen occasionally that the connection between the PC or laptop and the sunrise surf & talk box is interrupted. If this should occur, simply reestablish the connection.
If you wish to specify the channel yourself, select the desired entry from the **Channel Selection** list.
4. Click the **OK** button.

5. To leave the administrative interface, close your browser.

Adjusting the WLAN output power.

By adjusting the WLAN output power, you can change the range of your WLAN network.

How to adjust the WLAN output power

1. Log in to the sunrise surf & talk box's administrative interface (see *Logging in and logging out*, p.25).
2. Select the **Output Power** tab in the **WLAN** menu.
3. Select the desired value from the **Output Power** list.
100% represents full WLAN output power, 0% represents minimal WLAN output power. The WLAN interface transmits even at 0%, even though at very low power. If you do not wish to use the WLAN interface, disable the interface on the **Connection** tab in the **WLAN** menu.
4. To leave the administrative interface, close your browser.

Diagnostic Tools.

The sunrise surf & talk box includes a number of diagnostic tools you can use to check the status of the device and the Internet connection.

Status of the sunrise surf & talk box.

Here's how to check the status of the sunrise surf & talk box:

1. Log on to the administration user interface of the sunrise surf & talk box (see *Logging in and logging out*, p. 25).
2. Select the **Status** menu.

This menu displays information on individual aspects of the sunrise surf & talk box in various tabs.

UMTS/GPRS tab

Here you can find information on the mobile broadband status of the sunrise surf & talk box.

Access Point tab

Here you can find information on the WLAN access point of the sunrise surf & talk box.

DHCP Server tab

Here you can find information on the sunrise surf & talk box DHCP server, and on MAC and IP addresses of the PCs or laptops connected.

Security tab

Here you can find information on WEP and WPA encoding of the WLAN connection.

Firmware tab

Here you can find information on the firmware installed on the sunrise surf & talk box. In addition, the results of the device self-test is displayed in this tab.

Ping diagnosis.

You can use ping diagnosis to determine whether your sunrise surf & talk box is connected to the Internet.

Here's how to do a ping test:

1. Log on to the administration user interface of the sunrise surf & talk box (see *Logging in and logging out*, p. 25).
2. Choose the **Diagnose** tab from the **Tools** menu.
3. Enter a URL in the **Ping Target** field (e.g., www.google.ch).
4. Click on the **Do Ping Test** button.

A message is displayed to let you know whether the ping test was successful or not.

Troubleshooting – Administration interface.

The measures listed in this section may help if you have problems accessing the administration interface of the sunrise surf & talk box.

Note: The following procedures apply to Microsoft Windows XP (Service Pack 2). If you use a different operating system, please consult the user documentation provided by the manufacturer.

What to do if you forget the IP address of the sunrise surf & talk box:

1. Start your browser.
2. Enter the URL `http://192.168.0.1` into the address line of your browser and press ENTER.
This is the factory default IP address of the sunrise surf & talk box.
If your browser displays an error message after a brief period of time, this IP address is no longer valid, because it was changed in the Administration interface.
3. If you have forgotten the new IP address, you can restore factory settings (see *Restore factory settings (RESET)*, p. 30).


What to do if you forget your password:

If you forget your password for the administration interface, you have to restore the sunrise surf & talk box to the original factory settings. The exact process is described in the section entitled *Restore factory settings (RESET)*, p. 30.


Delete temporary Internet files:

1. Start Microsoft Internet Explorer.
2. Select **Tools > Internet Options**.
The **Internet Options** menu opens up.
3. Click on the **General** tab, then on the button **Delete Files**.
The **Delete Files** menu opens up.
4. Check the selection box for **Delete all offline content** and confirm the deletion by clicking the **OK** button.
5. Close the **Internet Options** menu by clicking the **OK** button.

Activate JavaScript in your browser:

1. Start Microsoft Internet Explorer.
2. Select **Tools > Internet Options**.
The **Internet Options** menu will open up.
3. Select the **Security settings** tab.
4. Click on the  **Internet** symbol and then on the button **Custom level**.
5. Scroll down to the heading **Active Scripting**, and select **Enable**, then press the **OK** button.
6. Close the **Internet Options** menu by clicking the **OK** button.


Configure your computer to allow dynamic IP addresses:

1. Click on the **START** button in the Windows taskbar, and select the option **Settings > Network connections**.
2. Right-click on the  **Local Area Connection** option, and select **Properties** from the context menu.
3. Make sure that the box **Internet Protocol (TCP/IP)** is activated in the **General** tab.
4. Click on **Internet Protocol (TCP/IP)** and then on the button **Properties**.
5. Activate the following options in the **General** tab:
 - **Obtain an IP address automatically**
 - **Obtain DNS server address automatically**
6. To save the configuration, click on the **OK** button.
You may be requested to restart your computer.

Determine the IP address of your computer:

1. Click on the **START** button in the Windows taskbar, and select the option **Programs > Accessories > Command Prompt**.
2. Enter «ipconfig» in the window, and confirm by pressing **ENTER**.
The IP address displayed has to be within the range of 192.168.0.10 to 192.168.0.200, or within the IP address range you set (see **Configure DHCP Server**, p. 47).
3. If this is not the case, restart your computer and the sunrise surf & talk box.

Check that the WLAN card is correctly installed in your computer:

1. Click on the **START** button in the Windows task bar, and select the option **Settings > Control Panel**.
The **Control Panel** menu will open up.
2. Double click on the  **System symbol**.
The **System Properties** menu will open up.
3. Select the **Hardware** tab.
4. Click on the **Device Manager** button.
The **Device Manager** menu will open up.
5. Select the **Network Adapters** entry.
6. Double click on the entry for your WLAN or Wi-Fi card.
Your WLAN or Wi-Fi card is correctly installed if the message «The device is functional» is displayed in the **Device Status field**.
7. Click on the **OK** button.

Glossary.

802.11g

802.11g is a standard for the wireless transmission of data with a data transfer speed of 54 mbit/s. The standard 802.11g is compatible with the standard 802.11b.

DHCP Server

DHCP is the abbreviation for Dynamic Host Configuration Protocol. The DHCP server sets an IP address range in which IP addresses can be assigned for attached devices (so-called DHCP clients).

DNS Server

DNS is the abbreviation for Domain Name Service. The DNS server steers the assignment of IP addresses to the appropriate domain names in the Internet.

Dynamic DNS

Dynamic DNS is the abbreviation for Dynamic Domain Name Service. This service controls the assignment of dynamic IP addresses to fixed domain names.

EDGE

EDGE is the abbreviation for Enhanced Data Rates for GSM Evolution. This mobile phone technology acts as an bolt-on-enhancement to GSM with a transmission rate of up to 200 Kbit/s.

Firewall

The firewall controls data traffic between a private network and a public network (i.e., the Internet). It protects the private network from unauthorized access attempts and attacks from the Internet.

Firmware

Firmware is the operating software of the sunrise surf & talk box.

GPRS

GPRS is an abbreviation for General Packet Radio Service. The GPRS standard extends the GSM standard in mobile networks to support packet-oriented data transfer at a speed of up to 53.6 Kbit/s.

HTTP

HTTP is an abbreviation for Hypertext Transfer Protocol. This protocol regulates the transfer of data within networks. It is mainly used to load web sites and other data from the Internet into a browser program.

IP address

An IP address is assigned to every device connected to the Internet (e.g., PC or laptop), and is unique and recognizable worldwide.

LAN

LAN is an abbreviation for Local Area Network. A LAN is a small network of computers connected to the Internet.

MAC address

MAC is an abbreviation for Media Access Control. MAC addresses are unique and unchangeable addresses for network cards (i.e., LAN or WLAN cards), assigned by the manufacturer.

NAT

NAT is an abbreviation for Network Address Translation. This is a method of converting private IP addresses from a LAN to public IP addresses in the Internet.

Port

A port is part of an address in network protocols used to assign data packets to the proper protocols.

Port Forwarding

Port forwarding is a method of mapping ports to IP addresses in NAT networks.

SSID

SSID is an abbreviation for Service Set Identifier. This is a network identifier in WLAN networks used to identify WLAN Access Points.

UMTS

UMTS is an abbreviation for Universal Mobile Telecommunications System. This new mobile standard allows data transfer at a high bandwidth.

WEP

WEP is an abbreviation for Wireless Equivalent Privacy. This is an encoding method on WLAN networks.

WLAN/Wi-Fi

WLAN is an abbreviation for Wireless Local Area Network; Wi-Fi stands for Wireless Fidelity. Both terms refer to the standard for wireless data transfer.

WPA

WPA is an abbreviation for Wi-Fi Protected Access. This is an encoding method on WLAN networks.

Specifications / Technical data.

Range of applications

- Complete solution for the private sphere, ideal for households without DSL service
- In the business world for VPN-secured access to email and intranets – for entire teams, even during travel.
- In the public realm for quickly establishing a temporary infrastructure – for trade fairs, festivals and other events.
- In the infrastructure domain, as a fall-back, “over the air” solution for DSL and ISDN

Features.

- Internet access through UMTS/EDGE/GPRS (HSDPA)
- Telephone function through GSM mobile telephony
- A single SIM card for sunrise surf & talk for both Internet and telephone
- Security through an integrated firewall
- WLAN encryption (WEP and WPA1+2)
- Multiple access for up to 253 users
- Access through WLAN and Ethernet
- Administration with PIN/PUK management
- SMS function: transmission, reception, forwarding
- Automatic system diagnosis (watchdog)
- Factory default fallback for hardware and software reset
- Router with unlimited VPN passthrough
- High system and continuous operation security
- Large WLAN range
- Low energy consumption
- Suitable for stationary and mobile use

Frequency bands

UMTS: 2100 MHz

GSM/GPRS: 900/1800 MHz

GSM/GPRS (USA): 850/1900 MHz

WLAN: 802.11b/g, 2.4 GHz

Data rates

HSDPA: up to 1.8 Mbit/s
UMTS: up to 384 Kbit/s
EDGE: up to 200 Kbit/s
GPRS: up to 53,6 Kbit/s
WLAN: up to 54 Mbit/s (802.11b/g)

Security

WLAN: WEP 64/128, WPA 1+2, 802.11x/EAP, MAC access control lists

Router: Firewall, stateful packet inspection, NAT, port forwarding

System: automatic self-diagnosis (watchdog), factory default fallback for hardware and software reset

Telephone

Make and receive calls
Calling Line ID Presentation (CLIP)

Router

DHCP server
DynDNS client
VPN passthrough unlimited
Ethernet/USB/WLAN bridge

Antennas

UMTS/GSM: external, frequency range: 850 to 2100 MHz
WLAN: internal, frequency range: 2400 to 2500 MHz

Administration

Configuration and status messages via browser and LCD display

Update capability

Firmware update via software upload

Compatibility

Independent of the operating system used (e.g., Microsoft, Apple, Linux)
Runs with all current browsers (e.g., Microsoft Internet Explorer, Netscape, Mozilla Firefox, Apple Safari)

Connection

Ethernet 10/100 BaseT via RJ45 jack
Analog telephone via RJ11 jack

Network connection

WLAN or with network cable
VPN compatible
Always on, network re-connect

Short Message Service (SMS)

Sending/receiving/forwarding/address book via a browser or with a software client

Operating environment

Operating temperature: 0 to 40 degrees Celsius

Humidity: 10% to 70%

System requirements

Ethernet 10/100 BaseT port or 802.11b/g WLAN

Browser TCP/IP protocol stack

Housing

Dimensions: 18,5 x 4,9 x 10 cm

Weight: 350 g

Design

Attractive polycarbonate housing in various versions

Suitable for desktop or wall mounting

Status indicators

Reception strength via LCD display

Device condition via LCD display

Energy requirements

Operating voltage 220-230 V/50 Hz

Maximum power consumption: 6 W

Average power consumption: 4.5 W

Supported standards

Europe CE

FCC Part 15 Class B

GCF type approval

PTCRB type approval

WiFi © certified WLAN module